

Appl. No. 10/653,882
Amendment dated: January 18, 2006
Reply to OA of: October 18, 2005

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1(currently amended). A method for forming high aspect ratio contact holes, comprising steps of:

- providing a substrate;
- forming a pad oxide layer on said substrate;
- forming a pad nitride layer on said pad oxide layer;
- forming an oxide layer on said pad nitride layer;
- forming a mask of a predetermined pattern on said oxide layer; and
- forming contact holes by plasma etching, the plasma etching using a plasma composition ~~comprising~~ consisting essentially of argon, oxygen, a first perfluorocarbon and a second perfluorocarbon, the fluorine-to-carbon ratio of said second perfluorocarbon being higher than that of said first perfluorocarbon.

2(previously presented). The method as claimed in Claim 1, wherein said first perfluorocarbon is C_5F_8 .

3(previously presented). The method as claimed in Claim 2, wherein the fluorine-to-carbon ratio of said second perfluorocarbon is higher than 8:5.

4(currently amended). The method as claimed in Claim 3, wherein said second perfluorocarbon is C_3F_8 .

5(currently amended). A method for forming high aspect ratio contact holes, said method using plasma etching to open contact holes, and being characterized in that the plasma etching uses a plasma composition ~~comprising~~ consisting essentially of argon,

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oxygen, a first perfluorocarbon and a second perfluorocarbon, the fluorine-to-carbon ratio of said second perfluorocarbon being higher than that of said first perfluorocarbon.

6(previously presented). The method as claimed in Claim 5, wherein said first perfluorocarbon is C_5F_8 .

7(previously presented). The method as claimed in Claim 6, wherein the fluorine-to-carbon ratio of said second perfluorocarbon is higher than 8:5.

8(previously presented). The method as claimed in Claim 7, wherein said second perfluorocarbon is C_3F_8 .